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Delfos Cotton and What It Is



Stoneville Pedigreed Seed Company Stoneville, Mississippi



# Delfos Cotton and What It Is



Plant breeder at work.

Stoneville Pedigreed Seed Company Stoneville, Mississippi



# **DELFOS COTTON**

## WHAT IT IS

Delfos cotton is a new variety originated at the Mississippi Delta Experiment Station by Dr. H. B. Brown, formerly plant breeder for the Mississippi Experiment Station. A great deal of interest is being taken in this new cotton, especially by cotton growers on alluvial lands and in long staple upland districts.

### THE NAME

The name "Delfos" was taken from the words "Delta Foster." This name was used because the variety was bred from Foster cotton and the work was done in the "Delta." This cotton is not related to Delta-type Webber in any way. Some have thought it to be a cross with Webber on account of the name. Delfos is a selection from Foster-120.

### HISTORY

The pedigree of Delfos cotton runs back to 1904, the date Prof. Saunders of the United States Department of Agriculture made a cross between Sunflower and Triumph cotton. Foster cotton, a variety put out by the United States Department of Agriculture, came from this cross. Selections made from a field of Foster at the Delta Experiment Station by E. C. Ewing in 1911 resulted in the production of Foster-120, a strain grown rather extensively in the Delta for a few years.

In 1916, H. B. Brown, at that time with the Mississippi Experiment Station but now head plant breeder for Stoneville Pedigreed Seed Company, made a large number of selections from a field of Foster-120. These selections were tested in various tests for three years. Two of them were found to possess much merit and were increased and distributed to growers. They were, at first, designated as Foster 6102 and Foster-631 but later, or in 1921, the name Delfos was given to them to avoid confusion with the old Department of Agriculture Foster and Foster-120 from which they differed by certain well marked characteristics. In the mind of many planters Foster cotton was all Foster cotton and no attention was paid to strain numbers.

## **DELFOS-6102**

#### DESCRIPTION OF VARIETY

Delfos-6102 has low, spreading, open plants, with comparatively slender main stem and branches; (See Fig. 1) the fruit branches are long and numerous; one to four vegetative branches are found on the plant if wide spaced; leaves are small; bolls are narrowly ovate, short pointed, 4 and 5 locked, open well, pick well, and run 70 to 80 to the pound of seed cotton; lint percentage 31 to 32; lint length 1½ to 1-3/16. Delfos-6102 is very early and very prolific. Bloom counts made by the Mississippi Experiment Station for a period of four years showed a higher rate of blooming for this than for any other variety (See Miss. Exp. Sta. Bulls. 187 and 205 and other publications).

The blooming record for a 125 foot row of each of the prominent varieties in the Seed Farm Variety Test in 1923 ran as follows:

Salsbury	804	blooms
Express-432		blooms
Watson's Staple		blooms
Express-350		blooms
Lightning Express-1		blooms
Lightning Express-2	835	blooms
Burdette Express	905	blooms
Walcott's Express		
Foster-120	688	blooms
Delfos-6102	1054	blooms
Delfos-631	1058	blooms
Webber-249-33	752	blooms
Webber-49-6	750	blooms
Deltatype Webber	547	blooms
Hartsville-16	459	blooms

The plants begin blooming about the first of July. Counts were made on nineteen different days in July. Boll weevils were plentiful during most of the month.

### **BOLL WEEVIL RESISTANCE**

Delfos-6102 is the best cotton in existence for planting in regions heavily infested with boll weevils. The weevils in a field of cotton will destroy what squares they need, regardless of the variety. If squares are plentiful, a much higher percentage will escape than if there is only a limited number. Consequently a cotton that puts on a large number of forms has the advantage in weevil resistance over one that produces a smaller number.

### **DEFECTS**

No one variety of cotton is especially adapted to all conditions. Delfos-6102 is not wilt resistant and consequently should not be planted on soil that is badly infected with wilt or blight. It will make a good yield on soils lightly infected. There are but few fields in the Delta that are badly infected.

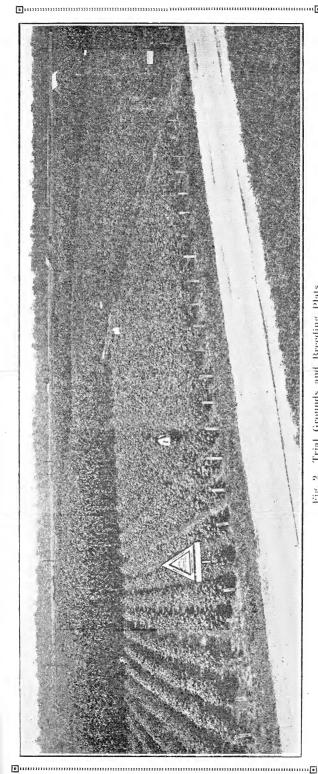
Delfos-6102 is not a vigorous growing variety and so is not suited for planting on thin lands unless the soil is well fertilized. But does it pay anyone to farm poor land without fertilizing?

### SPECIAL ADAPTATIONS

Delfos-6102 is especially well adapted to planting on new ground or on lands that are so fertile that other varieties of cotton when grown on them become too rank. It does well on medium fertile land and is the best variety for late planting, or for growing under heavy boll weevil infestation.

# PERFORMANCE RECORD OF DELFOS-6102

The record made by Delfos-6102 in the various variety tests conducted by the experiment stations of the State and in other states, has been phenomenal. Table 1 shows the record in brief.



Trial Grounds and Breeding Plats. Fig. 2.

# TABLE NO. 1—DELFOS-6102 IN EXPERIMENT STATION TESTS

W. Seed Cot.	Length Staple	Lint %	Money Value Per Acre	Rank in Money Value	Bolls to a Pound
Var. test Miss. Col. Exp. St., '191124	1-1/8	30.8	202.44	4	69
Var. test Delta Exp. Sta., '191479	1-1/8	30.7	265.32	8	
Var. test Miss. Col. Exp. Sta., '201085	1-3/16	30.7	85.99	2	80
Var. test Delta Exp. Sta., '201855	1-1/8	32.3	134.75	2	
Var. test South Miss. Exp. Sta., '201060	1-3/16	31.1	84.96	4	
Var. test Col. Exp. Sta., '211315	1-3/16	32.4	138.95	3	
Var. test Delta Exp. Sta., '211608	1-3/16	31.3	194.13	1	76
Var. test Raymond Exp. Sta., '211039	1-1/8	33.4	104.06	2	
Var. test Miss. Col. Exp. Sta., '22 847	1-3/16	31.0	82.51	11	
Var. test South Miss. Exp. Sta., '22 918	1-3/16	30.0	93.31	6	
Var. test Delta Exp. Sta., '221082	1-3/16	31.5	108.54	1	
	1-1/8f	32.7	169.19	2	81
Var. test Raymond Exp. Sta., '22 1440		31.6	139.76	1	
Var. test Burdette, Ark., '22 2040				2	
Var. test Manchester, N. C., '22				1	

Each of the above tests included twenty or more of the best cotton varieties known. In twenty-three different variety tests conducted in Mississippi in 1922, Delfos ranked first in money value in six and second in seven more. (See table 2.) Its average rank for all of the tests was 3.5. No other cotton made a record that approached this. Lightning Express ranked first but twice and was not second in any test. Delfos-6102 out-yields Express and excels it in gin turnout by 3 or 4 per cent.



TABLE 2-RANK OF COTTON VARIETIES IN 23 TESTS IN MISSISSIPPI, 1922, ON BASIS OF MONEY VALUE

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Times of 14th Rank	7	-	:	;	:	1		:	:	1	-			_	-	
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Times of 12th Rank	-	1	3	:	-		:	;	-	:	-		_	}	-	1
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Number of Tests	Ξ	10	4		G	16	15	12	23	9	4	55	20	75	98	61
						,										
VAR:ETY	Miss. Sta. Trice	Wann, Cleveland	Cleveland-37W	Acala	Long Star-65	Salsbury 1	Express-432	Express-350	ress-Lightning	Express-Walcott 6	ter-120	fos-6102	Delfos-621 20	Webber-49 12	tatype Webber	Sunpress
	Miss	Wai	Clev	Aca	Lon	Sals	Exp	Exp	Exp	Exp	Fost	Dell	Delf	Web	Delt	Sun



Fig. 1. A well fruited plant of Delfos-6102.



rown by Stoneville Pedigreed Seed Company

Notice, in the tables below, how Delfos-6102 compares with certain well known varieties in respect to yield of lint, money value, etc. Do you see that it makes more lint per acre than even the short staple varieties?

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TABLE NO. 3—DELFOS-6102 COMPARED WITH CLEVELAND WANNAMAKER

Variety	Station	Seed	Lint %	Lint Cotton	Staple Length	Moncy Value
Delfos-6102 II Cleveland WanL	elta	1082.0 <b>892.4</b>	$\frac{31.5}{37.3}$	340.0 33 <b>2.0</b>	1-3/16 3/4	$108.54 \\ 103.06$
Delfos-6102	ollegeollege	847.9 677.1	$\frac{31.0}{36.9}$	262.8 <b>249.8</b>	$\frac{1-3/16}{3/4}$	82.51 65.56
l)elfos-d102C Cleveland WanC	ollege (Hill)ollege (Hill)	456.0 347.2	$\frac{33.0}{37.9}$	$150.5 \\ 131.6$	$\frac{1-1/8}{3/4}$	$\frac{43.35}{34.37}$
Cleveland WanS	outh Miss.	657.0	30.0 34.5	275.9 <b>226.9</b>	1-3/16f 7/8	93.31 <b>64.66</b>
Cleveland WanH	Iolly Springs Iolly Springs	598.9	30.7 <b>34.5</b>	269.9 <b>207.</b> 0	1-1/8 7/8	89.27 57.97
Cleveland WanH	. S. (Hill) . S. (Hill)	544.4	$\frac{30.7}{34.5}$	226.9 188.2	1-1/8 7/8	75.05 42.71
Cleveland WanD	elta & Pine L'd Co elta & Pine L'd Co	1237.3	29.5 32.6	$\frac{417.1}{404.1}$	1-1/8f 1	140.58 $116.67$
Delfos-6102Se Cleveland WanSe	eed Farmeed Farm	1591.6 1271.0	$31.7 \\ 38.1$	504.0 484.0	1-3/16 7/8	157.62 $113.95$

TABLE NO. 4-DELFOS-6102 COMPARED WITH ACALA

Variety	Station	Seed Cotton	t %	Lint Length	ton	e e e
		Sec	Lint	i i	Money Cotton	Stable Value
Delfos-6102	Delta Station1	082.0	31.5	340.8	1-3/16	108.54
Acala	Delta Station	767.2	35.6	273.1	1-1/16	78.16
Delfos-6102	Delta Station1	109.0	32.3	357.0	1-3/16	113.21
Acala	Delta Station	884.8	35.3	312.5	1-1/16	89.52
Delfos-6102	College Station	849.9	31.0	262.8	1-3/16	82.51
Acala	College Station	901.6	36.3	327.3	1-1/16f	92.69
		918.0	30.0	275.9	1-3/16f	93.31
Acala	South Miss. Sta	765.0	35.3	270.7	1-1/16f	80.73
Delfos-6102	Holly Springs	878.9	30.7	269.9	1-1/8	86.45
Acala	Holly Springs	850.0	34.9	293.7	1-1/16	75.05
Delfos-6102	Holly Springs (Hill)	738.9	30.7	226.9	1-1/8	93.71
Acala	Holly Springs (Hill)	668.9	34.9	233.9	1-1/16	68.77
Delfos-6102	Delta & Pine L'd Co1	413.0	29.5	417.1	1-1/8f	140.58
Acala	Delta & Pine L'd Co1	270.2	31.3	398.8	1-1/16f	124.60
Delfos-6102	Seed Farm	720.0	32.7	562.0	1-1/8f	169.19
Acala	Seed Farm1	389.0	35.9	499.0	1-1/16	127.85
Delfos-6102	Heathman1	142.0	35.3	403.0	1-1/8	113.66
Acala	Heathman1	030.0	39.1	403.0	1	93.56

#### TABLE NO. 5-DELFOS-6102 COMPARED WITH SALSBURY

Variety	Station	Seed Cotton	Lint %	int Cotton	Staple Cength	Money Value
	elta Station		31.5	340.8	1-3/16	\$108.54
	elta Station		32.8	243.7	1-1/8	74.56
	olivar Co			435.1		142.00
	olivar Co			411.0		128.60
	ollege Sta		31.0	262.8	1-3/16	82.51
	ollege Sta		32.0	257.3	1-1/8	77.75
	outh Miss. Sta		30.0	275.9	1-3/16f	93.31
	outh Miss. Sta		31.9	279.1	1-1/8	88.83
	lolly Springs		30.7	269.9	1-1/8	89.27
	olly Springs		30.1	222.6	1-1/8	70.61
	folly Springs (Hill)		30.7	226.9	1-1/8	75.05
Salsbury H	olly Springs (Hill)	. 591.1	30.1	178.1	1-1/8	56.49
	elta & Pine L'd Co		29.5	417.1	1-1 8f	140.58
Salsbury D	elta & Pine L'd Co	.1344.4	30.8	414.1	1-1/8	133.53
	eed Farm	1720.0	32.7	562.0	1-1 8f	169.19
SalsburySe	ed Farm	.1452.0	32.5	472.0	1-1/16	125.71

# TABLE NO. 6—DELFOS-6102 COMPARED WITH LIGHTNING EXPRESS

Variety	Station	Seed Cotton	Lint %	Lint Cotton	Staple Length	Money Value
	elta Stationelta Station		31.5 28.8	340.8 <b>284.0</b>	1-3/16 1-3/16	\$108.54 92.17
	ollege Stationollege Station		$\frac{31.0}{29.7}$	$\frac{262.8}{270.7}$	1-3/16 1-3/16	82.51 85.05
Lightning ExpC	ollege Sta. (Hill) ollege Sta. (Hill)	280.8	33.0 <b>30.0</b>	$150.5 \\ 114.2$	1-1/16f 1-1/8	$\frac{43.35}{34.93}$
Lightning Exp So	outh Miss. Sta outh Miss. Sta	900.0	30.0 27.8	275.9 250.8	1-3/16 1-3/16	93.31 <b>85.1</b> 9
Lightning ExpH	olly Springsolly Springs	894.4	30.7 28.0	269.9 <b>250.9</b>	1-1/8 1-1/8	89.20 <b>83.48</b>
Lightning ExpH	olly Springs (Hill) olly Springs (Hill)	746.6	30.7 28.0	226.9 209.4	1-1/8 1-1/8	75.05 69.68
Lightning Exp De	elta Pine L'd Co elta Pine L'd Co	1387.3	29.5 27.3	417.1 379.9	1-1/8f 1-3/16 1-1/8f	140.58 134.59 169.19
Lightning Exp Se	ed Farm	1327.0	32.7 27.5	562.0 386.0 423.4	1-1 81 1-3/16	122.62 138.61
	olivar Countyolivar County		>	362.0		117.33

# TABLE NO. 7—DELFOS-6102 COMPARED WITH DELTA TYPE WEBBER

Variety	Station	u o	%	u o	a 든	e e
		Seed Cotton	Lint	Lint Cotton	Staple Length	Money Value
Delfos-610°	Delta Station		31.5	340.8	1-3/16	\$108.54
	r.Delta Station		30.5	207.0	1-1/4	68.42
Delfos-6102	Bolivar Co. (8)	1478.0		456.4	1-3/16	180.21
Deltatype Webbe	r.Bolivar Co	1226.0		329.0	1-1/4	103.04
Delfos-6102	College Station	847.9	31.0	262.8	1-3/16	82.51
Deltatype Webbe	r.College Station	500.2	28.5	142.6	1-1/4	46.90
	South Miss. Sta		30.0	275.9	1-3 '16f	
Deltatype Webbe	r.South Miss. Sta	675.0	30.4	205.4	1-1/4	70.30
Delfos-6102	Holly Springs	878.9	30.7	269.9	1-1/8	69.27
Deltatype Webbe	r.Holly Springs	404.4	27.7	112.9	1-1/4	38.50
	Holly Spgs. (Hill).		30.7	226.9	1-1/8	75.05
	r.Holly Spgs. (Hill).		27.7	132.6	1-1/4	45.66
	Delta Pine L'd Co		29.5	417.1	1-1 8f	140.58
Deltatype Webbe	r.Delta Pine L'd Co	1084.6	26.4	286.1	1-1/4f	110.48
	Seed Farm		32.7	562.0	1-1 '8f	169.19
	r.Seed Farm		30.3	381.0	1-3/16	120.11
	Heathman		35.3	403.0	1-1-8	113.66
	rHeathman		30.5	271.0	1-3/16	85.32
	Dunleith		33.9	526.0	1-1/8f	157.36
Deltatype Webbe	r.Dunleith	1137.0	30.8	350.0	1-3/16f	115.27

You may also want to know how Delfos-6102 compares with other varieties when grown on a plantation scale. Table 8 gives figures on actual yield on plantations in 1922.

#### TABLE NO. 8—FIELD PERFORMANCE OF DELFOS-6102 AND 631 IN 1922

#### TRAIL LAKE PLANTATION

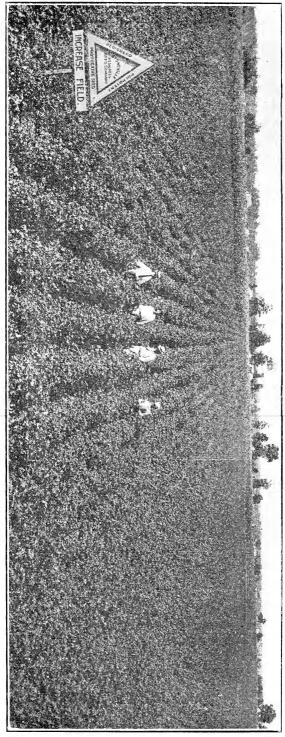
Variety Delfos-6102	No. Acres	No. Bales 162	Lint Per Acre	Lint %	Staple* Length
Delta Type Webber	. 500	164	388 <b>198</b>		6.8 <b>8.4</b>
Express-350		585 <b>24</b>	227 282		6.9 <b>7.</b> 3

#### DUNLEITH PLANTATION

Variety	No. Acres	No. Bales	Lint Per Acre	Lint	Staple* Length
Foster-120	1387	669	243		6.4
Delfos-6102	168	121	377	32.0	7.2
Express-350	250	143	366	27.0	7.6
Delfos-631	145	111	411	31.0	7.7

\*These figures are the average of the whole number of bales from the inbound classification of the Staple Cotton Association classers at Greenwood, Miss. The out-bound classification was about 1/32 of an inch longer.

Key to numbers: 6-1-1/8 inches; 7-1-1/8 inch full; 8-1-3/16 inches.



### DELFOS-631

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#### DESCRIPTION

Delfos-631 has erect plants of medium height, and is rather open. Where the plants are not crowded there are one or more vegetative branches; leaves are small to medium size; bolls are rather long, ovate, long pointed, running 64 to 70 to a pound; bolls open well, are fairly stormproof and pick well; staple 1% to 1% inches in length; lint percentage 30 to 31.5.

Delfos-631 resembles Delfos-6102 in general appearance but is some taller and a little more vigorous in its growth. See Fig. 4 on pages 8 and 9. It is consequently somewhat better for planting on poor land but does well on rich soil. It is very early and prolific for a cotton with a large boll. The staple length is better than that of Delfos 6102 and Express, and it also excels most strains of Express in lint percentage by about three per cent.

The productiveness of Delfos-631 is well shown by the following table:

# PERFORMANCE RECORD OF DELFOS-631

Variety Test	Secd Cotton Per Acre	Staple Length	Lint %	Money Value Per Acre	tank in Money Value	30Hs to
Miss. Col. Exp. Sta., '19	1033	1-3/16	30.4	215.50	1	64
Delta Exp. Sta., '19	1280	1-3/16	30.0	263.96	9	
Miss. Col. Exp. Sta., '20	995	1-5/16	30.5	107.12	1	66
Delta Exp. Sta., 20	1897	1-3/16	32.0	158.87	1 .	
Miss. Col. Sta., '21	1398	1-3/16f	31.7	136.03	7	
Delta Exp. Sta., '21	1527	1-1/4	30.9	186.32	2	66
Raymond Exp. Sta., '21	1019	1-1/4	33.5	102.17	2	
College Exp. Sta., '22	756	1-1/4	30.5	74.95	16	
Delta Exp. Sta., 22	1020	1-1/4	31.4	103.71	5	
South Miss. Exp. Sta., '22	1608	1-1/4	30.6	105.46	4	
Raymond Exp. Sta., '22	1185	1-1/4	31.5	116.67	12	
Seed Farm, Stoneville, '22	1719	1 - 3/16	31.5	169.39	1	66

The Stoneville Pedigreed Seed Company does real constructive plant breeding work. See picture of breeding plots and trial grounds. It has employed the highest salaried plant breeder in the State, who devotes the major part of his time to cotton breeding. He originated Delfos, the most popular staple cotton of the present time.

Go to the ORIGINATOR if you wish to purchase the best Delfos seed.

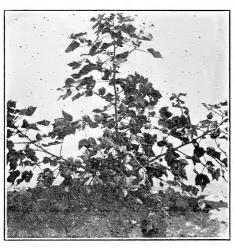


Fig. 4. A typical plant of Delfos-631.

# Stoneville Pedigreed Seed Company

Stoneville, Mississippi







SMITH-STRAWN, INC., MEMPHIS